

Amendments to the Claims

Claims 1-56 (canceled)

57. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath having a passage which extends between axially opposite end portions of said sheath, said sheath being resiliently expandable from a contracted condition in which the passage through said sheath has a relatively small cross sectional size in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which the passage through said sheath has a relatively large cross sectional size in a plane perpendicular to the longitudinal central axis of said sheath, said sheath having an oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath when said sheath is in the contracted condition; and an array of filaments which is enclosed by said sheath and extends axially substantially from one end portion to the other end portion of said sheath, wherein said sheath is biased in the contracted condition.

58. (previously added) An expandable cannula as set forth in claim 57 wherein said passage in said sheath has an oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath when said sheath is in the contracted condition.

59. (previously added) An expandable cannula as set forth in claim 57 wherein said sheath has an oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath when said sheath is in the expanded condition.

60. (previously added) An expandable cannula as set forth in claim 59 wherein said passage in said sheath has an oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath when said sheath is in the expanded condition.

61. (previously added) An expandable cannula as set forth in claim 57 wherein said passage in said sheath is engageable by a member having an oval cross sectional configuration in a plane extending perpendicular to the longitudinal central axis of said sheath, said member having an oval cross sectional configuration being axially movable along said passage in said sheath to expand said sheath from the contracted condition to the expanded condition.

62. (previously added) An expandable cannula as set forth in claim 57 further including pump means connected in fluid communication with said passage in said sheath, said pump means being operable to provide fluid pressure which is applied to said passage in said sheath to expand said sheath from the contracted condition to the expanded condition.

63. (canceled)

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64. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath leaving a passage which extends between axially opposite end portions of said sheath, said sheath being resiliently expandable from a contracted condition in which the passage through said sheath has a relatively small cross sectional size in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which the passage through said sheath has a relatively large cross sectional size in a plane perpendicular to the longitudinal central axis of said sheath, said sheath having an oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath when said sheath is in the contracted condition; and a variable volume chamber connected with said sheath and movable into the patient's body tissue with at least a portion of said sheath, said variable volume chamber being expandable under the influence of fluid pressure to an extended condition in which said variable

volume chamber projects outward from a side surface of said sheath to retard withdrawal of said sheath from the patient's body tissue.

65. (previously added) An expandable cannula as set forth in claim 57 wherein said cannula has a pointed end portion for piercing the patient's body tissue when said sheath is in the contracted condition and has an oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath.

66. (currently amended) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath which at least partially encloses an array of filaments which extends between axially opposite end portions of said sheath substantially from one end portion to the other end portion of said sheath, said sheath having a passage which extends between opposite end portions of said sheath with said array of filaments extending along an inner side of said passage, said sheath, passage, and [said] array of filaments being resiliently expandable from a contracted condition in which said sheath, passage, and [said] array of filaments have a relatively small cross sectional size in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which said sheath, passage, and [said] array of filaments [leave] have a relatively large cross sectional size in a plane perpendicular to the longitudinal central axis of said sheath, wherein said sheath is biased in the contracted condition.

67. (previously added) An expandable cannula as set forth in claim 66 wherein said sheath and said array of filament have a relatively small oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath when said sheath is in the contracted condition and a relatively large oval cross section in a plane extending perpendicular to the longitudinal central axis of said sheath when said sheath is in the expanded condition.

68. (currently amended) An expandable cannula as set forth in claim 66 wherein [said sheath has a passage which extends between opposite end portions of said sheath, said sheath and said array of filaments being resiliently expandable from a contracted condition in which] the passage through the sheath has a relatively small oval cross sectional size in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which the passage through said sheath has a relatively large oval cross sectional size in a plane perpendicular to the longitudinal central axis of said sheath.

69. (currently amended) An expandable cannula as set forth in claim 66 wherein [said sheath has a passage which extends between opposite end portions of said sheath, said array of filaments extend along an inner side of said passage, said sheath, passage, and array of filaments being resiliently expandable from a contracted condition in which] said sheath, passage, and array of filaments have relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath in the contracted condition and [to an expanded condition in which] said sheath, passage, and array of filaments have relatively large oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath in the expanded condition.

70. (currently amended) An expandable cannula as set forth in claim 66 wherein [said sheath has a passage which extends between opposite end portions of said sheath,] said passage in said sheath is engagable by a member having an oval cross sectional configuration in a plane extending perpendicular to a longitudinal central axis of said sheath, said member having an oval cross sectional configuration being axially movable along said passage to expand said sheath and array of filaments from the contracted condition to the expanded condition.

71. (currently amended) An expandable cannula as set forth in claim 66 wherein [said sheath has a passage which extends between opposite end portions of said sheath,] pump ^{is} means connected in fluid communication with said passage in said sheath, said pump means being operable to provide fluid pressure which is applied to said passage in said sheath to expand said sheath and array of filaments from the contracted condition to the expanded condition.

72. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath which at least partially encloses an array of filaments which extends between axially opposite end portions of said sheath, said sheath and said array of filaments being resiliently expandable from a contracted condition in which said sheath and said array of filaments have a relatively small cross sectional size in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which said sheath and said array of filaments leave a relatively large cross sectional size in a plane perpendicular to the longitudinal central axis of said sheath; and a variable volume chamber connected with said sheath and insertable into the patient's body tissue with at least a portion of said sheath, said variable volume chamber being expandable under the influence of fluid pressure to an extended condition in which said variable volume chamber projects outward from a side surface of said sheath to retard withdrawal of said sheath from the patient's body tissue.

73. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath which at least partially encloses an array of filaments which extends between axially opposite end portions of said sheath, said sheath and said array of filaments being resiliently expandable from a contracted condition in which said sheath and said array of filaments have a relatively small cross sectional size in a plane perpendicular to a longitudinal central axis of said sheath to an expanded

condition in which said sheath and said array of filaments leave a relatively large cross sectional size in a plane perpendicular to the longitudinal central axis of said sheath, wherein said sheath has a pointed end portion for piercing body tissue when said sheath and array of filaments are in the contracted condition.

74. (canceled)

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75. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath having a passage which extends between axially opposite end portions of said sheath, said sheath being resiliently expandable from a contracted condition in which said sheath and passage have relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which said sheath and passage have relatively large oval cross sectional sizes in a plane perpendicular to the longitudinal central axis of said sheath, and a pointed end portion at least partially formed by said sheath for piercing body tissue when said sheath and passage have the relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath.

76. (canceled)

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77. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath which at least partially encloses an array of filaments which extends between axially opposite end portions of said sheath, said sheath having a passage which extends between axially opposite end portions of said sheath, said sheath and said array of filaments being resiliently expandable from a contracted condition in which said sheath, array of filaments, and passage have relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of

said sheath to an expanded condition in which said sheath, array of filaments, and passage have relatively large oval cross sectional sizes in a plane perpendicular to the longitudinal central axis of said sheath, and a pointed end portion for piercing body tissue when said sheath and passage have the relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath, wherein said passage in said sheath is engagable by a member having an oval cross sectional configuration in a plane extending perpendicular to the longitudinal central axis of said sheath, said member having an oval cross sectional configuration being axially movable along said passage in said sheath to expand said sheath from the contracted condition to the expanded condition.

78. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath having a passage which extends between axially opposite end portions of said sheath, said sheath being resiliently expandable from a contracted condition in which said sheath and passage have relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which said sheath and passage have relatively large oval cross sectional sizes in a plane perpendicular to the longitudinal central axis of said sheath, and a pointed end portion for piercing body tissue when said sheath and passage have the relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath; and pump means connected in fluid communication with said passage in said sheath, said pump means being operable to provide fluid pressure which is applied to said passage in said sheath to expand said sheath from the contracted condition to the expanded condition.

79. (previously added) An expandable cannula which is movable into a patient's body tissue, said cannula comprising a tubular sheath having a passage which extends between axially opposite end portions of said sheath, said sheath being resiliently expandable from

a contracted condition in which said sheath and passage have relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath to an expanded condition in which said sheath and passage have relatively large oval cross sectional sizes in a plane perpendicular to the longitudinal central axis of said sheath, and a pointed end portion for piercing body tissue when said sheath and passage have the relatively small oval cross sectional sizes in a plane perpendicular to a longitudinal central axis of said sheath; and a variable volume chamber connected with said sheath and movable into the patient's body tissue with at least a portion of said sheath, said variable volume chamber being expandable under the influence of fluid pressure to an extended condition in which said variable volume chamber projects outward from a side surface of said sheath to retard withdrawal of said sheath from the patient's body tissue.